

Johnson County, KS  
Well: E. Gordon N1  
Lease Owner: D Z

Town Oilfield Service, Inc.  
(913) 837-8400

Commenced Spudding:  
11/26/2013

WELL LOG

| Thickness of Strata | Formation            | Total Depth |
|---------------------|----------------------|-------------|
| 21                  | soil/clay            | 21          |
| 11                  | shale                | 32          |
| 5                   | lime                 | 37          |
| 6                   | shale                | 43          |
| 15                  | lime                 | 58          |
| 8                   | shale                | 66          |
| 9                   | lime                 | 75          |
| 9                   | sandy shale and sand | 84          |
| 18                  | lime                 | 102         |
| 15                  | sandy shale          | 117         |
| 19                  | lime                 | 136         |
| 10                  | shale                | 145         |
| 52                  | lime                 | 197         |
| 24                  | shale                | 221         |
| 8                   | lime                 | 229         |
| 18                  | shale                | 247         |
| 8                   | lime                 | 255         |
| 5                   | shale                | 260         |
| 8                   | lime                 | 268         |
| 34                  | shale                | 302         |
| 2                   | lime                 | 304         |
| 10                  | shale                | 314         |
| 26                  | lime                 | 340         |
| 7                   | shale                | 347         |
| 23                  | lime                 | 370         |
| 5                   | shale                | 375         |
| 4                   | lime                 | 379         |
| 5                   | shale                | 384         |
| 6                   | lime                 | 390         |
| 5                   | shale                | 395         |
| 7                   | sand                 | 402         |
| 11                  | sandy shale          | 413         |
| 90                  | shale                | 503         |
| 7                   | sand                 | 510         |
| 6                   | sandy shale          | 516         |
| 44                  | shale                | 560         |
| 7                   | lime                 | 567         |
| 11                  | shale                | 578         |
| 7                   | lime                 | 585         |
| 16                  | shale                | 601         |



# Short Cuts

## TANK CAPACITY

BBLS. (42 gal.) equals  $D^2 \times .14 \times h$   
 D equals diameter in feet.  
 h equals height in feet.

## BARRELS PER DAY

Multiply gals. per minute x 34.2

HP equals BPH x PSI x .0004

BPH - barrels per hour

PSI - pounds square inch

## TO FIGURE PUMP DRIVES

- \* D - Diameter of Pump Sheave
- \* d - Diameter of Engine Sheave
- SPM - Strokes per minute
- RPM - Engine Speed
- R - Gear Box Ratio
- \*C - Shaft Center Distance

D -  $\frac{RPM \times d}{SPM \times R}$

d -  $\frac{SPM \times R \times D}{RPM}$

SPM -  $\frac{RPM \times D}{R \times d}$

R -  $\frac{RPM \times D}{SPM \times d}$

$$BELT LENGTH - 2C + 1.57(D + d) + \frac{(D-d)^2}{4C}$$

\* Need these to figure belt length

$$TO FIGURE AMPS: \frac{WATTS}{VOLTS} = AMPS$$

746 WATTS equal 1 HP

# Log Book

Well No. NI

Farm East Gordon

KS Johnson  
 (State) (County)

27 14 22  
 (Section) (Township) (Range)

For D+Z Exploration  
 (Well Owner)

## Town Oilfield Services, Inc.

1207 N. 1st East  
 Louisburg, KS 66053  
 913-710-5400



| Thickness of Strata | Formation          | Total Depth | Remarks                |
|---------------------|--------------------|-------------|------------------------|
| 21                  | soil / clay        | 21          |                        |
| 11                  | shale              | 32          |                        |
| 5                   | Lime               | 37          |                        |
| 6                   | shale              | 43          |                        |
| 15                  | Lime               | 58          |                        |
| 8                   | shale              | 66          |                        |
| 9                   | Lime               | 75          |                        |
| 9                   | scaly shale & sand | 84          |                        |
| 18                  | Lime               | 102         |                        |
| 15                  | sandy shale        | 117         |                        |
| 19                  | Lime               | 136         |                        |
| 10                  | shale              | 145         |                        |
| 52                  | Lime               | 197         |                        |
| 24                  | shale              | 221         |                        |
| 8                   | Lime               | 229         |                        |
| 18                  | shale              | 247         |                        |
| 8                   | Lime               | 255         |                        |
| 5                   | shale              | 260         |                        |
| 8                   | Lime               | 268         |                        |
| 34                  | shale              | 302         |                        |
| 2                   | Lime               | 304         |                        |
| 10                  | shale              | 314         |                        |
| 26                  | Lime               | 340         | 326 - very little show |
| 7                   | shale              | 347         |                        |
| 23                  | Lime               | 370         |                        |
| 5                   | shale              | 375         |                        |
| 4                   | Lime               | 379         |                        |

100  
101

| Thickness of Strata | Formation   | Total Depth | Remarks                       |
|---------------------|-------------|-------------|-------------------------------|
| 5                   | shale       | 384         |                               |
| 6                   | lime        | 390         | Nonthe                        |
| 5                   | shale       | 395         |                               |
| 7                   | sand        | 402         | grey, no oil                  |
| 11                  | sandy shale | 413         |                               |
| 90                  | shale       | 503         |                               |
| 7                   | sand        | 510         | grey, no oil                  |
| 6                   | sandy shale | 516         |                               |
| 44                  | shale       | 560         |                               |
| 7                   | lime        | 567         |                               |
| 11                  | shale       | 578         |                               |
| 7                   | lime        | 585         |                               |
| 16                  | shale       | 601         |                               |
| 4                   | lime        | 605         |                               |
| 8                   | shale       | 613         |                               |
| 8                   | lime        | 621         |                               |
| 35                  | shale       | 656         | red bed - 624'                |
| 20                  | sand        | 676         | grey, no oil                  |
| 7                   | sandy shale | 683         |                               |
| 45                  | shale       | 728         |                               |
| 6                   | Broken sand | 734         | abr, very little oil          |
| 10                  | sandy shale | 744         |                               |
| 22                  | shale       | 766         |                               |
| 6                   | sand        | 772         | no oil                        |
| 5                   | sandy shale | 777         |                               |
| 62                  | shale       | 839         |                               |
| 2                   | sandy lime  | 841         | odor, 75% - 90% sand bleeding |

